

DEPARTMENT OF THE ARMY  
U.S. ARMY MEDICAL DEPARTMENT CENTER AND SCHOOL  
2250 STANLEY ROAD  
FORT SAM HOUSTON, TEXAS 78234-5052

MCCS-FCD-L (25-30xx)

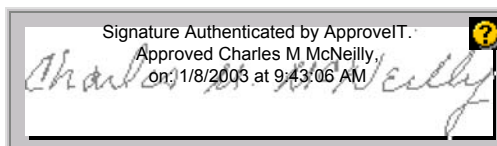
8 Jan 03

MEMORANDUM FOR Office of The Surgeon General, ATTN: DASG-HCO, 5109 Leesburg Pike, Falls Church, VA 22041-3258

SUBJECT: Interim Doctrine on Skin Exposure Reduction Paste Against Chemical Warfare Agents (SERPACWA)

1. The enclosed interim doctrine on SERPACWA is provided for use by U.S. Army personnel during deployments. FM 4-02.285, when published, will supercede this interim doctrine.
2. The basis of issue is six (6) packets per service member. Additional SERPACWA will be available at unit level.
3. The Joint Task Force, Corps or Division Commander will decide when SERPACWA will be used by the individual service member.
4. Other services may use this doctrine as they desire in the employment of SERPACWA.
5. Points of contact for this action are Mr. Roy Flowers, Commercial (210) 221-9684, DSN 471-9684 and his E-mail address is roy.flowers@amedd.army.mil; and LTC Debra Schnelle Commercial (703) 681-8185, DSN 761-8185, and her E-mail address is debora.schnelle@amedd.army.mil.

FOR THE COMMANDER:



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as

for STEVEN F. GOUGE  
Colonel, MC  
Director, Combat and Doctrine  
Development

CF:  
Surgeon General, USAF  
Surgeon General, USN  
Commandant USMC Combat Development  
Commander  
MRMC  
John F. Kennedy Special Warfare Center and School  
USA Armor Center and School  
USA Field Artillery School  
(CONT)

MCCS-FCD  
SUBJECT: Interim Doctrine for SERPACWA

CF: (CONT)  
Fort Hauchuca and Intelligence School  
USAMRICD  
USAMMDA  
USAMMA

Commandant  
USA Chemical School  
USA Infantry School  
USA Military Police School  
USA Engineer School

6 January 2003

# INTERIM DOCTRINE FOR THE USE OF SKIN EXPOSURE REDUCTION PASTE AGAINST CHEMICAL WARFARE AGENTS (SERPACWA)

## 1. Use of Skin Exposure Reduction Paste Against Chemical Warfare Agents.

a. The skin exposure reduction paste against chemical warfare agents (SERPACWA) is a barrier cream for use by service members (SMs) to protect against the toxic effects of chemical warfare agents (CWA) (examples, blister [vesicant] and nerve agents). The SERPACWA, when used in conjunction with mission-oriented protective posture (MOPP) gear, will prevent or significantly reduce the toxicity following percutaneous exposure to CWA. The SERPACWA serves as an antipenetrant barrier to CWA.

b. The SERPACWA creates a physical barrier between the skin and the CWA; only those areas of the skin having an intact layer of SERPACWA will be protected.

c. Individuals should use SERPACWA as an adjunct to MOPP, not as a substitute. Established doctrine for MOPP is followed if agent contamination is anticipated or suspected, even if the individual is wearing SERPACWA. Apply the SERPACWA before donning the MOPP.

d. All SMs at risk in a potentially contaminated CWA environment should use SERPACWA.

e. Each SM is issued 6 packets of SERPACWA (see Figures 1 and 2 for packet labels). This is sufficient material for 6 applications or for 2 days of use.

## SKIN EXPOSURE REDUCTION PASTE AGAINST CHEMICAL WARFARE AGENTS (SERPACWA)

Ingredients: Polytetrafluoroethylene and perfluoroalkypolyether  
Net: 84 g Store between 20° and 30° C.

**CAUTION:** For military use only. For external use only. This product, product packaging, and clothing or other materials exposed to SERPACWA should not be destroyed by burning due to the release of toxic fumes. Avoid getting SERPACWA on smoking products. Clean hands thoroughly before handling smoking products. Smoking should be avoided during and after applying SERPACWA.

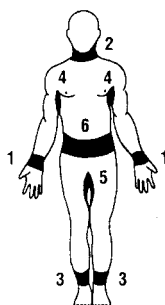
Manufactured for U.S. Army by: McKesson HBOC BioServices  
14665 Rothgeb Drive  
Rockville, MD 20850

Figure 1. SERPACWA Packet Front Label.

#### INSTRUCTIONS FOR USE FOR MILITARY PERSONNEL:

This product is intended for use prior to exposure to CWA and only in conjunction with MOPP gear.

- Before you put on the chemical protective overgarment, use a dry towel to wipe off the sweat, insect repellent, camouflage paint, sand or dirt from your skin at the areas shown in the picture below and on the label.
- The barrier properties of SERPACWA may be reduced if any insect repellents and/or camouflage paints remain on the skin surfaces to which SERPACWA is applied.
- Tear open the packet and squeeze about one third of the pouch into the palm of your hand and rub it evenly around the wrists (**site 1**), neck (**site 2**), and boot tops of lower legs (**site 3**) until it forms a white film which is barely noticeable. Remove the remaining two thirds of the SERPACWA from the pouch and rub it evenly onto your armpits (**site 4**), groin area (**site 5**), and waistline (**site 6**).



After the product is applied, if exposure to CWA is either confirmed or suspected, follow the appropriate protocol for decontamination.

- For removal of SERPACWA in the absence of exposure to CWA, scrub the sites with a dry towel, or if possible, with a cloth using both soap and water.
- For personnel who smoke, hands should have no visible traces of SERPACWA prior to handling of smoking products. If smoking products have an unusual or unpleasant taste during smoking, this may

indicate that the products have been contaminated with SERPACWA. If this occurs, personnel are advised to cease smoking and discard the potentially-contaminated products. Even in the absence of an unusual or unpleasant taste, the smoking product may still be contaminated, so smoking should be avoided. Clothing or other materials exposed to SERPACWA and SERPACWA packaging should not be destroyed by burning, because of the release of toxic fumes.

Figure 2. SERPACWA Packet Back Label.

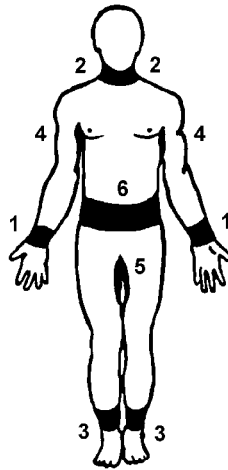
f. The field commander will decide whether to begin, continue, or discontinue SERPACWA use based on the threat. The intelligence officer, the chemical officer, and the surgeon serve as advisors to the commander in making the decision if a CWA threat exists (for example, the enemy having vesicants or nerve agents in the combat zone and the probability of their use).

## 2. Application of SERPACWA.

The effectiveness of SERPACWA is dependent on the thickness and integrity of the SERPACWA layer and the length of time between application and agent exposure (wear time).

*a. Skin Surface Coverage.* When applying SERPACWA to the skin, first priority should be given to covering those areas adjacent to the closures of the battle dress overgarment (BDO)/Joint Service Lightweight Suit Technology (JSLIST) chemical protection overgarment; the neck, wrists, and lower legs (areas around the top of the boots). Additional SERPACWA may be applied to the armpits, groin area, creases and crack of the buttocks, and around the waist. Do not apply SERPACWA to open wounds or remove bandages to apply SERPACWA to these areas.

*b. Thickness of SERPACWA.* Under normal conditions, SERPACWA is effective when spread over the skin as a thin layer (0.1 millimeter [mm] thickness or 0.01 ml/square centimeter [cm]). One packet of SERPACWA contains 1.35 fluid ounces (about 2.7 weight ounces or 84 grams [gm]) for one application. A third of the packet should cover the skin areas of neck, wrists, and lower legs (at boot tops). This amount of SERPACWA will produce a smooth coating on the skin which is in barely visible cream color and detectable by touch. The rest of the packet of SERPACWA may be applied to the armpits, groin area, creases and crack of buttocks, and around the waist. See Figure 3 for application areas.



*Figure 3. Application areas for skin exposure reduction paste against chemical warfare agents.*

*c. Wear Time.* The SERPACWA, which is not water soluble, cannot be washed off by water or removed by sweat without brushing and scrubbing, but it may physically wear off with time. Abrasion of SERPACWA by clothing or other contacts, such as sand or dirt, will reduce the wear time. The SERPACWA needs to be reapplied when the coating is generally embedded with particulate matter (dirt or sand), or the sites are decontaminated, or after 8 hours on the skin. Normally, SERPACWA on the skin is effective for 4 hours in preventing CWA from penetrating and contacting the skin.

### **3. Use of SERPACWA with Other Nuclear, Biological, or Chemical Protective Material.**

*a. Military Protective Mask.* Use of SERPACWA and the military protective mask together does not require any change in doctrine on the use of the protective mask. The SERPACWA does not interfere with the sealing capability of the protective mask. No loss of vision (such as eye irritation or fogging on the mask lens) due to SERPACWA use is expected. The SERPACWA is odorless.

*b. Battle Dress Overgarment/JLIST.* Use of SERPACWA should not reduce the effectiveness of the BDO/JLIST. Since SERPACWA has no water content, it will not wet the BDO/JLIST.

*c. Chemical Agent Detection Systems.* SERPACWA on the skin will not register a false alarm with the automatic detectors (Chemical Agent Monitor [CAM]) and chemical agent detector systems, such as M8 paper for G-nerve agents or vesicants (SERPACWA must not be on the surface of M8 paper because it prevents CWA from contacting the M8 paper).

*d. M291 Skin Decontaminating Kits (SDKs).* M291 SDKs are more effective when SERPACWA is applied on the skin because it is easier to physically remove CWA from the SERPACWA layer than from the skin. Service members should perform skin decontamination

immediately after chemical contamination, as the effectiveness of SERPACWA decreases with time.

*e. Insect Repellent, DEET.* Use of DEET on the skin, before or after SERPACWA application, will decrease the effectiveness of the SERPACWA. Avoid applying DEET as much as possible on skin areas where SERPACWA is to be applied. (SERPACWA can still provide significant protection by physically removing DEET from the skin using a dry wipe [towel, gauze, or clothing], not a wet wipe, before applying the SERPACWA.)

#### **4. Steps for Applying SERPACWA.**

*a.* When directed by your commander/leader, apply SERPACWA as follows:

- (1) Remove the SERPACWA from your uniform pocket or rucksack.
- (2) Wipe off sweat and remove all loose dirt or sand from your neck, hands, wrists, and lower leg (at the boot tops). If applicable, remove insect repellent with dry (must not be wet) towel or gauze, or your BDU, or any other available clean item. Dry your armpits, waistline, creases and crack of buttocks, and groin area as much as possible.
- (3) Tear open a SERPACWA packet. Place about one third of the SERPACWA from the container into your hand.
- (4) Rub and work the SERPACWA, in about a 2-inch wide band, to the neck (all surfaces from the back of the hairline to the jaw line, then under the chin), to the lower legs (at the boot tops); using one hand for each side; then to the wrists and back of the hands.
- (5) Rub and work the remainder of the package contents to the groin area, all creases and the crack of the buttock; waist (about a 2-inch wide band around the waist and the armpits).
- (6) Rub and work excess SERPACWA, if any, evenly over areas where it has been applied (in order: wrist, neck, and legs at boot top) and ensure an even distribution.

*b.* Reapplication of SERPACWA. If the chemical threat continues, reapplication of SERPACWA will be needed at the following times:

- (1) After decontamination of CWA from the SERPACWA protected skin areas;
- (2) When the feel of the SERPACWA on the skin diminishes;
- (3) After washing and brushing the SERPACWA protected areas;
- (4) When the SERPACWA barrier becomes disturbed by embedded particulate matter such as sand or dirt, or by rubbing with towel or clothing;

(5) After 8 hours of continuous wear if mission permits; or

(6) At the direction of your commander/leader.

### **CAUTION**

Do not remove the protective overgarment in a contaminated environment to apply additional layers of SERPACWA.

### **5. Removal of SERPACWA.**

The SERPACWA can be removed by brushing and scrubbing the skin areas with soap and water.